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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,573	10/07/2003	Philip D. Childers	ATS835.0002	5245
34487	7590	06/29/2005	EXAMINER	
BRENT A. CAPEHART LaRiviere, Grubman & Payne, LLP 19 Upper Ragsdale Drive, Suite 200 P.O Box 3140 Monterey, CA 93940			CASAREGOLA, LOUIS J	
			ART UNIT	PAPER NUMBER
			3746	
DATE MAILED: 06/29/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/680,573	Applicant(s) CHILDERS, PHILIP D.	
	Examiner Louis J. Casaregola	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-9 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Restriction Requirement

Restriction to one of the following inventions is required under 35 USC 121:

I. Claims 1-8 drawn to apparatus for treating a power plant flue gas stream classified in Class 60, subclass 39.5, and

II. Claims 9-11 drawn to a method of treating a flue gas stream classified in Class 60, subclass 772.

The inventions of Groups I and II above are distinct because the apparatus of Group I could be operated according a method materially different than that of Group II, and/or the method of Group II could be performed with apparatus materially different than that of Group I. The claimed apparatus, for example, does not necessarily require a catalyst and could be operated without the catalytic step required by the method (claim 9, item d).

Because these inventions are distinct for the reasons given above and require separate classification and/or divergent fields of search, restriction for examination purposes as indicated is proper.

Applicant is advised that even in the event that the restriction requirement is traversed, the response to this requirement to be complete must include an election of the invention to be examined.

In addition to the division between apparatus and method set forth above, further election of individual species is required.

Species Election

This application encompasses three different species of the inventive subject matter as shown, for example, in Figures 2, 3 and 4 respectively. Pursuant to 35 USC 121, applicant is required for a complete response to (1) elect a single disclosed species and (2) list all claims readable on the elected species including any claims subsequently added (MPEP 809.02(a)).

Claim 1 appears to be generic.

Applicant is further advised that a mere argument alleging that a generic claim is allowable will not satisfy a species election requirement. For a complete response, applicant must elect a single species and list the claims readable on that species as set forth above.

Claim Rejections - 35 USC 112

Claims 1-11 are rejected under 35 USC 112, first paragraph, as the claimed invention is not described in such full, clear, concise and exact terms as to enable any person skilled in the art to make and use the same.

The inventive subject matter is directed to treatment of a flue gas stream. As shown in Figure 1, flue gas stream 12 is conducted into exhaust duct assembly 10

where it receives an injection of vaporized aqueous ammonia 30. The so-called exhaust duct 10 however is shown in the preferred embodiment(s) as a closed ended vessel with inlets for flue gas and aqueous ammonia but no outlet. The final disposition of the flue gas after treatment is unclear. Either applicant intends for the flue gas to simply accumulate in duct/vessel 10, which seems rather unlikely, or the exhaust duct shown in the preferred embodiment is seriously misrepresented.

The invention according to the claimed species further includes either a so-called "band heater" (Fig. 2), a "heat tracing apparatus" (Fig. 3), or a "blanket heater" (Fig. 4). Though differing slightly in size, the heaters shown in the various preferred embodiments all appear to be wrap-around units attached to the cylindrical wall of vaporization chamber 42. It is not clear from applicant's disclosure precisely how these heaters are distinguished from each other.


Claims 1-11 are also rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims all require the recited vaporization chamber to be preheated by "an independent source"; see for example claim 1, line 6. The cited expression is vague and indefinite. In the various species shown, heat sources 44, 52, and 54 all appear to be part of vaporization chamber 42, so what is the claimed heat source intended to be independent from?

References

Fellows et al, Yamaguchi, and Cho et al are cited as disclosing pertinent example of prior art gas treatment systems comprising vaporization units for aqueous ammonia. Because of the above noted problems in understanding the claims and disclosure, however, the references cannot be properly applied at this time.

L. J. Casaregola
571-272-4826 (M-F; 7:30-4:00)
703-872-9306 FAX
June 27, 2005


LOUIS J. CASAREGOLA
PRIMARY EXAMINER

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).